UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/493,220	01/28/2000	Alison Joan Lennon	169.1595	1967

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EXAMINER
PHAM, HUNG Q

ART UNIT	PAPER NUMBER
2172	

DATE MAILED: 08/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>25 June 2003</u> .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-18,32-53,67-71,74,117 and 118</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-18, 32-53, 67-71, 74, and 117-118</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All b) ☐ Some * c) ☐ None of:

        1. ☐ Certified copies of the priority documents have been received.

        2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

        3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Continued Prosecution Application

1.   The request filed on 06/25/2003 for a Continued Prosecution Application

(CPA) under 37 CFR 1.53(d) based on parent Application No. 09/493,220 is acceptable

and a CPA has been established. An action on the CPA follows.

Response to Arguments

2.   Applicant's arguments filed on 06/25/2003 have been fully considered but

they are not persuasive. As argued by applicant:

> *DeRose does not disclose or suggest at least the feature that a description of a resource is*
> *separate from the resource.*

Examiner respectfully traverses because of these reasons:

As disclosed by DeRose, each element of a document as a resource is

represented by array of element descriptors 90 as in shown in the data structure of FIG.

6 for navigating the document with a plurality of fields, each field contains a particular

attribute, wherein the element type in field 102 is represented by a pointer to another

data structure, or data file, called the fully-qualified name table. The fully-qualified name

table is a list of element types encountered in the document. The pointer includes a

representation of the offset, or location, of the element type in the fully-qualified name

table (Col. 9, lines 20-Col. 10, line 35). As shown in FIG. 8 is the process for generating

an element directory of FIG. 6. The process is initialized in step 110, the token from the

parser is retrieved in step 112, and the attributes is saved and put in the location of the

element directory in step 118 (DeRose, Col. 10, line 36-Col. 12, line 52). Thus, an

element directory for containing the description of a resource is apart from the

document, or in other words, *the description of a resource is separate from the resource.*

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   **Claim 1-18, 32-53, 67-71, 74, and 117-118 are rejected under 35 U.S.C.
103(a) as being unpatentable over DeRose et al. [USP 5,708,806].**

Regarding to claims 1, 36 and 71, DeRose teaches a method and system for

generating a representation of an electronic document and navigating the electronic

document using its representation and for displaying the electronic document on an

output device. As shown in FIGS. 1-2 is the structure of the data processing system.

The DeRose system receives as its input a document, which complied with the SGML

standard, and represented in electronic form, which includes text content, descriptive

markup and possibly non-text content (Col. 7, line 61-Col. 8, line 7; Col. 8, lines 40-42).

As shown in FIG. 4 is an SGML document includes start tag 45 begins a markup

element, an end tag, such as end tag 47, ends the corresponding markup element.

Elements having start and end tags occurring between the start and end tags of another

element are defined to be children or lower elements of the tree defined by the markup

structure (Col. 8, lines 52-62). As shown in FIG. 5 is a tree structure generated from the

sample SGML document of FIG. 4 with each element, such as TITLE, CHAPTER,

SECTION ... (FIG. 5, Col. 9, lines 12-22). Each element is represented by array of

element descriptors 90 as in shown in the data structure of FIG. 6 for navigating the

document with a plurality of fields, each field contains a particular attribute, wherein the

element type in field 102 is represented by a pointer to another data structure, or data

file, called the fully-qualified name table. The fully-qualified name table is a list of

element types encountered in the document. The pointer includes a representation of

the offset, or location, of the element type in the fully-qualified name table (Col. 9, lines

20-Col. 10, line 35). As shown in FIG. 8 is the process for generating an element

directory of FIG. 6. The process is initialized in step 110, the token from the parser is

retrieved in step 112, and the attributes is saved and put in the location of the element

directory in step 118 (DeRose, Col. 10, line 36-Col. 12, line 52). As seen, each array of

element descriptors in the elementary directory of FIG. 6 represents the descriptions of

a particular element or resource, and *the descriptions (i) having descriptor components*

having attributes representative of access to the resources, (ii) being separate from the

resources and (iii) having links to corresponding electronically-accessible resources. In order

to render a document by displaying formatted text of a document on an output device, an element directory is used for the selected document (Col. 15, line 66-Col. 16, line 5). As shown in FIG. 16 is process of constructing the table of contents for a document beginning with the root element. Subsequently, each item having a title may be displayed as part of a table of contents. The traversal is essentially a depth-first search of element directory as shown in FIGS. 19A-C (Col. 16, lines 31-37; Col. 21, lines 1-25). This technique indicates the step of *reading the descriptions of the resources*. When the table of contents construction is completed, the constructed table of contents records is written orderly to a file in the mass storage device according to element identifier. With this table of contents construction, an element having a title may be displayed in the table of contents (Col. 16, lines 55-60). As shown in FIG. 12 is the display of the table of contents corresponding to an electronic document. As discussed above and in short, the DeRose technique indicates the step of *displaying items, each item being associated with a corresponding descriptor component of a description read in said reading step that has at least one attribute*. DeRose does not explicitly teaches the steps of *browsing the descriptions of the resources and their corresponding electronically-accessible resources via the links using the displayed items*. However, as in the DeRose FIGS. 12-14, when the table of contents is displayed on the screen, the title for the first element in the table of contents file is displayed. A section of the table of contents may then be expanded, for example, responsive to a mouse event or other indication by a user, by displaying the titles for any immediate sub-elements of a selected displayed element and for subsequent elements which were in the original display (DeRose, Col. 17, lines 3-16).

Thus, via the pointer as discussed in FIG. 6, a section of the table of contents will be

displayed responsive to a mouse event, or in other words, this technique indicates the

step of *browsing the descriptions of the resources and their corresponding electronically--*

accessible resources via the links using the displayed items. Therefore, it would have been

obvious for one of ordinary skill in the art at the time the invention was made to modify

the DeRose method by including the steps of browsing the descriptions of the resource,

and by doing this, an electronic document could be navigated by using its

representation.

Regarding to claims 117, and 118, DeRose teaches all the claimed subject

matters as discussed in claims 1, and 36, DeRose further discloses: *the attributes are*

representative of at least two axes of access to the resources (DeRose, FIG. 12).

Regarding to claims 2 and 37, DeRose teaches all the claimed subject matters

as discussed in claims 1 and 36, DeRose further discloses: *description is represented by a*

tree of descriptor components, and one or more of said descriptor components have descriptor

components as descendents (DeRose, FIG. 3, Col. 7, line 60-Col. 8, line 27).

Regarding to claims 3 and 38, DeRose teaches all the claimed subject matters

as discussed in claims 117 and 118, DeRose further discloses: *one of said axes of access*

is a table of contents classification (DeRose, FIG. 12, Col. 16, line 44-Col. 17, line 16).

Regarding to claims 4 and 39, DeRose teaches all the claimed subject matters as discussed in claims 117 and 118, DeRose further discloses: *one of said axes of access is an index classification* (DeRose, FIG. 12, Col. 13, lines 4-19 and Col. 15, lines 24-30).

Regarding to claims 5 and 40, DeRose teaches all the claimed subject matters as discussed in claims 1 and 36, DeRose further discloses: *the descriptions of the resources are generated using a description scheme as a template, and the description scheme uses a declarative description definition language which contains definitions for descriptor components of the descriptions of the resources* (DeRose, Col. 8, line 41-Col. 9, line 11).

Regarding to claims 6 and 41, DeRose teaches all the claimed subject matters as discussed in claims 5 and 40, DeRose further discloses: *the attributes of the descriptor components are defined in the description scheme* (DeRose, Col. 8, line 41-Col. 9, line 11).

Regarding to claims 7 and 42, DeRose teaches all the claimed subject matters as discussed in claims 5 and 40, DeRose further discloses: *the attributes of the descriptor components are a persistent item of the description scheme* (DeRose, Col. 8, line 41-Col. 9, line 11).

Regarding to claims 8 and 43, DeRose teaches all the claimed subject matters as discussed in claims 5 and 40, DeRose further discloses: *the attributes of the descriptor*

components are instantiated by an application when required (DeRose, Col. 8, line 41-Col.

9, line 11).

Regarding to claims 9 and 44, DeRose teaches all the claimed subject matters

as discussed in claims 8 and 43, DeRose further discloses: *the attributes of the descriptor*

components are instantiated using a rule that is associated with the description scheme

(DeRose, Col. 8, line 41-Col. 9, line 11).

Regarding to claims 10 and 45, DeRose teaches all the claimed subject matters

as discussed in claims 1 and 36, DeRose further discloses: *the resources comprise an*

item of digital content (DeRose, Col. 8, lines 19-26).

Regarding to claims 11 and 46, DeRose teaches all the claimed subject matters

as discussed in claims 1 and 36, DeRose further discloses: *the resources comprise an*

electronic document or resource available over the World Wide Web (DeRose, Col. 7, lines

60-66 and Col. 24, lines 4-18).

Regarding to claims 12 and 47, DeRose teaches all the claimed subject matters

as discussed in claims 1 and 36, DeRose further discloses: *the resources comprise an*

electronic device (DeRose FIG. 1, Col. 7).

Regarding to claims 13 and 48, DeRose teaches all the claimed subject matters as discussed in claims 1 and 36, DeRose further discloses: *each of the description contains links to identified sections of a resource* (DeRose, FIG. 3, Col. 8).

Regarding to claims 14 and 49, DeRose teaches all the claimed subject matters as discussed in claims 117 and 118, DeRose further discloses: *axes of access are determined by rules operating on the description* (DeRose, Col. 13, line 4-Col. 14, line 41 and Col. 16, lines 22-37).

Regarding to claims 15 and 50, DeRose teaches all the claimed subject matters as discussed in claims 117 and 118, DeRose further discloses: *axes of access are determined during the generation of the description of the resource* (DeRose, Col. 12, lines 53-67).

Regarding to claims 16 and 51, DeRose teaches all the claimed subject matters as discussed in claims 117 and 118, DeRose further discloses: *attributes of said descriptor components representative of said at least two axes of access are inferred from the content of the description* (DeRose, FIG. 12).

Regarding to claims 17 and 52, DeRose teaches all the claimed subject matters as discussed in claims 16 and 51, DeRose further discloses: *attribute of a said descriptor*

component is inferred to be a table of content descriptor if the said descriptor component

contains a reference to a resource or a section of a resource (DeRose, FIG. 12).

Regarding to claims 18 and 53, DeRose teaches all the claimed subject matters

as discussed in claims 17 and 52, DeRose further discloses: *attribute of a said descriptor*

component is inferred to be an index descriptor if the said descriptor component is not

inferred to be a table of contents descriptor (DeRose, FIG. 12).

Regarding to claims 32, 67 and 74, DeRose teaches a method and system for

generating a representation of an electronic document and navigating the electronic

document using its representation and for displaying the electronic document on an

output device. As shown in FIGS. 1-2 is the structure of the data processing system.

The DeRose system receives as its input a document, which complied with the SGML

standard, and represented in electronic form, which includes text content, descriptive

markup and possibly non-text content (Col. 7, line 61-Col. 8, line 7; Col. 8, lines 40-42).

As shown in FIG. 4 is an SGML document includes start tag 45 begins a markup

element, an end tag, such as end tag 47, ends the corresponding markup element.

Elements having start and end tags occurring between the start and end tags of another

element are defined to be children or lower elements of the tree defined by the markup

structure (Col. 8, lines 52-62). As shown in FIG. 5 is a tree structure generated from the

sample SGML document of FIG. 4 with each element, such as TITLE, CHAPTER,

SECTION ... (FIG. 5, Col. 9, lines 12-22). Each element is represented by array of

element descriptors 90 as in shown in the data structure of FIG. 6 for navigating the

document with a plurality of fields, and an element identifier, which is assigned to its

corresponding element. The element descriptor 90 includes a field 92 for representing

the parent of the element, a field 94 for representing the first child, a field 96 for

representing the last child, a field 98 for representing a left sibling, a field 100 for

representing a right sibling, a field 102 for representing the type of the element each

field contains a particular attribute, wherein the element type in field 102 is represented

by a pointer to another data structure, or data file, called the fully-qualified name table.

The fully-qualified name table is a list of element types encountered in the document.

The pointer includes a representation of the offset, or location, of the element type in the

fully-qualified name table (Col. 9, lines 20-Col. 10, line 35). As shown in FIG. 8 is the

process for generating an element directory of FIG. 6. The process is initialized in step

110, the token from the parser is retrieved in step 112, and the attributes is saved and

put in the location of the element directory in step 118 (DeRose, Col. 10, line 36-Col. 12,

line 52). As seen, each array of element descriptors in the elementary directory of FIG.

6 represents the descriptions of a particular element or resource, and *the descriptions*

having being separate from the resources and having descriptor components each of which

comprises a name of a feature of the resource and associated representative value for the

feature, one or more of the descriptor components including a table of contents attribute and

one or more of the descriptor components including an index attribute. In order to render a

document by displaying formatted text of a document on an output device, an element

directory is used for the selected document (Col. 15, line 66-Col. 16, line 5). As shown

in FIG. 16 is process of constructing the table of contents for a document beginning with

the root element. Subsequently, each item having a title may be displayed as part of a

table of contents. The traversal is essentially a depth-first search of element directory as

shown in FIGS. 19A-C (Col. 16, lines 31-37; Col. 21, lines 1-25). This technique

indicates the step of *reading the descriptions of the resources*. When the table of contents

construction is completed, the constructed table of contents records is written orderly to

a file in the mass storage device according to element identifier. With this table of

contents construction, an element having a title may be displayed in the table of

contents (Col. 16, lines 55-60). As shown in FIG. 12 is the display of the table of

contents corresponding to an electronic document. As discussed above and in short,

the DeRose technique indicates the step of *displaying a table of contents containing table*

of content items, each table of contents item being associated with a corresponding descriptor

component that has a table of contents attribute. DeRose further discloses the step of

selecting one displayed table of contents item for annotation (Col. 22, line 65-Col. 23, line

39). The DeRose FIGS. 12-14 illustrates the step of *displaying an index containing index*

items and DeRose further discloses *each displayed index item being associated with a*

corresponding descriptor component that has an index attribute and is associated with the

selected table of contents item (Col. 13, lines 43). As shown in LOOKUP WINDOW screen

of FIG. 12, by *selecting one displayed index item* such as "SHOES", the term is *associating*

the selected displayed index item with the selected table of contents item as shown in TEXT

VIEW screen. DeRose does not explicitly teach the steps of *choosing a representative*

value for the selected index item; and associating the chosen representative value with the

feature which corresponds to the selected index item, wherein the chosen representative value and its corresponding feature provide an annotation of the resource. However, DeRose discloses another feature provided by the indexing and rendering methods that enables cumulative search statistics to be displayed in combination with the table of contents as shown in FIGS. 12-13 by instructing the system to search on a given word in a document. The elements in which the selected word occurs may be determined from the frequency record for the selected word. By providing a style sheet for the table of contents which directs the rendering process to examine a selected variable, e.g. "word", which may store a value indicative of a selected search word, when a table of contents then is displayed, the number of occurrences in the element corresponding to the item for the selected word may be retrieved from its frequency record and displayed. Thus, a user may know how many times a word occurs in each section of a document whose table of contents item is displayed. A user may then determine relevant portions of the displayed document (Col. 17, lines 30-46). This technique indicates the steps of *choosing a representative value for the selected index item; and associating the chosen representative value with the feature which corresponds to the selected index item, wherein the chosen representative value and its corresponding feature provide an annotation of the resource.* Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method by separating the table of content from the resources and including the step of choosing a representative value, and by doing this, an electronic document could be navigated by using its representation.

Regarding to claims 33 and 68, DeRose teaches all the claimed subject matters as discussed in claim 32, DeRose further discloses: *description read in said reading step is represented by a tree of descriptor components, and one or more of the descriptor components have descriptor components as descendants* (DeRose, FIG. 3, Col. 7, line 60-Col. 8, line 27).

Regarding to claims 34 and 69, DeRose teaches all the claimed subject matters as discussed in claim 32, but fails to disclose the step of *associating the selected display index item is allowed only if the corresponding descriptor of the selected display index item is a valid descriptor for the table of contents item selected for annotation*. However, as shown in FIG. 12, if a user enters a word is not in the document at LOOKUP WINDOW screen, the step of associating obviously will not be allowed. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to modify the DeRose method by including the step of allowing in order to associate an index item with a table of content item.

Regarding to claim 35, DeRose teaches all the claimed subject matters as discussed in claim 32, DeRose further discloses the step of *choosing a representative value is predetermined* (DeRose, Col. 17, lines 30-46).

Regarding to claim 70, DeRose teaches all the claimed subject matters as discussed in claim 67, DeRose further discloses: *operation of said means for selecting one said table of contents item is optional and if not performed said means for displaying an index displays all said index items associated with all said table of contents items* (DeRose, FIG. 12).

Conclusion

5.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung Pham whose telephone number is 703-605 4242. The examiner can normally be reached on Monday-Friday, 7:00 Am - 3:30 Pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, VU, KIM YEN can be reached on 703-305 4393. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746 7239 for regular communications and 703-746 7238 for After Final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305 3900.

Examiner: Hung Pham
July 31, 2003

JEAN M CORRIELUS
PRIMARY EXAMINER